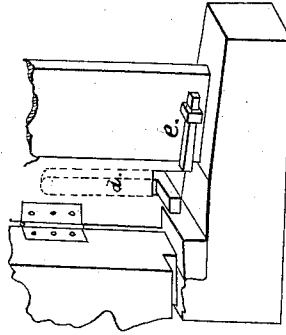
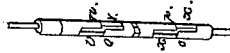


*E. C. Tilson,*  
*Hanging Doors,*  
*N<sup>o</sup> 571. Patented July 9, 1838.*

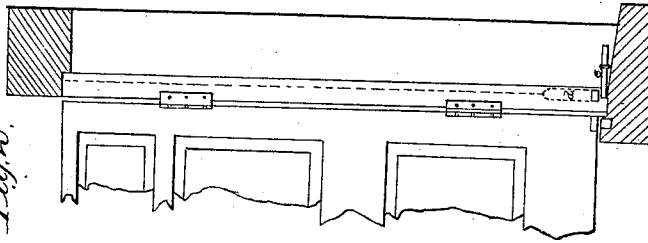
*Fig. 1.*



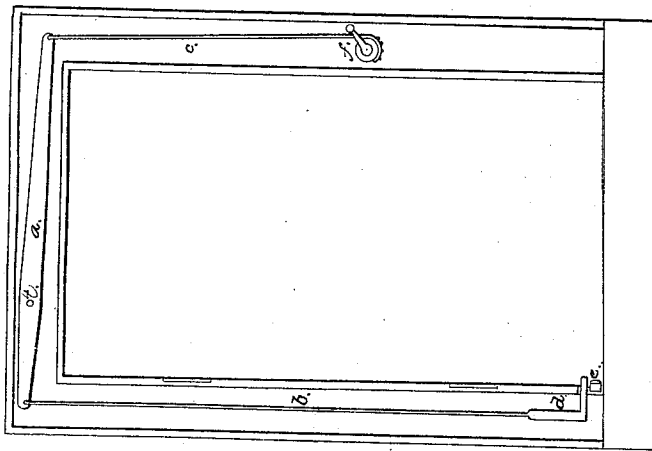
*Fig. 3.*



*Fig. 2.*



*Fig. 4.*



# UNITED STATES PATENT OFFICE.

EDWARD C. TILSON, OF THOMASTON, MAINE.

## METHOD OF HANGING DOORS TO PREVENT RAIN FROM BEING FORCED UNDER THEM BY WIND, &c.

Specification of Letters Patent No. 571, dated January 9, 1838.

*To all whom it may concern:*

Be it known that I, EDWARD C. TILSON, of Thomaston, county of Lincoln, State of Maine, house joiner, have invented a new and improved mode of preventing rain from being forced by driving winds under the outside doors of dwelling-houses and other buildings, and the following is a full and exact description thereof.

My invention consists, firstly, in making a perpendicular offset in the doorstool or threshold of about half an inch below the level of the highest part of the stool, so that the door when closed may be let down, or if not obstructed, will slip down of itself the depth of the offset, leaving the top ridge of the stool elevated thus much above the bottom of the door on the inside, but not on the outside.

Secondly, in placing over the door within or behind the inside casing, a lever moving on a pivot midway; from the short end of which a rod is let down and connected by a spur with the heel of the door, so as to raise it when a power is applied to the other end of the lever, which is done by letting down a rod from that end also with a small chain at the lower end to wind on to a windlass in the wall by means of a knob crank on the outside of the casing; and thirdly, in making an offset in the eye or joint of the door hinge so that one leaf of the hinge may slide down on the connecting wire half an inch below the other when the door is shut; and in placing a slide in the jamb casing at the heel of the door to slide under the door to keep it up to its swinging level in fair weather, or when there is no occasion for letting it down.

In elucidation of the invention, the annexed drawings are referred to as part of this specification, with the figures, letters, numbers and notes thereon.

Figure 1, represents an inside view of the doorway with the inside casings removed disclosing the lever, rods, windlass, spur and the end of the slide. Fig. 2, represents a view of the jamb casing next to the heel of the door, a section of the door opened and the slide at the bottom of the casing pushed forward partly under the spur to prevent the door from descending down the offset when shut; also an end view of the doorstool and the offset in the same. Fig. 3, rep-

resents the offset in the joint of the door hinge, in a position to let the door descend. Fig. 4, is a perspective view of a section of the door opened, jamb, casing, stool, &c., on a larger scale, in which the slide drawn back with its knob and confining staple, is more distinctly shown.

The same letters are affixed to corresponding parts in the several figures.

The lever *a*, may be of wood and the pivot *t*, or fulcrum so placed as to give it a lifting leverage of nearly 3 to 1. The rods *b* and *c*, should be of metallic wire, *b*, about a quarter of an inch diameter, and *c*, may be less. The spur, *d*, may be cast or wrought, the shank or vertical post from 8 to 12 inches long so that it may slide more easily in the groove cut for it in the wall or joist back of the inside casing, and to that end too it should be placed as near to the door as practicable with a short arm to enter into a notch or mortise cut in the heel of the door to receive it. The windlass *f*, may be about one inch diameter. It extends through the outside and inside casings and intervening wall or joist, and has a knob crank at each end of about 4 or 5 inches sweep, so that the door may be raised on the outside or inside, and is placed at a convenient height for that purpose. The chain on the end of the rod *c*, should just reach the windless when the door is down, so that turning the crank either way will raise the door. It must be obvious to every one how the power of leverage may be increased or diminished at pleasure. It will generally be found that the door may be raised with sufficient ease when so adjusted as to require a third or half of a turn of the crank. The spur may enter the heel of the door at any point between the top and bottom; and instead of a windlass, the rod *c*, may be continued down to near the bottom and attached to a foot piece with a spur projecting through the jamb casing, and another through the inside casing, to be pressed by the foot in raising the door. On the top of the door-stool next to the offset, there should be a strip of iron or other metal to protect the corner of the stool. The corresponding offsets in the joint of the door hinge appear at *x*, *x* and *v*, *v*. As the hinge is opened the parts *n*, *n*, in the joint, move over and rest upon the parts *o*, *o*, on the

other leaf of the hinge, the leaf attached to the door sliding up and down on the joint-wire.

Now what I claim as my invention and  
5 for which I ask a patent which shall secure to me and my legal representatives the exclusive right thereof, is—

1. The letting a door down an offset in the threshold when shut, as above described,  
10 to prevent the rain from driving under the door into the building.

2. The method of raising the door so as to swing over the stool, and of sustaining it at pleasure when closed, as fully described in the foregoing description thereof, and any  
15 other operating upon similar principles, and in a similar manner, or analogous thereto.

EDWARD C. TILSON.

Witnesses:

GEO. W. FALES,  
DAVID FALES.